

for clearance for the drill when passing through, and for the escape of the chips.

The two plates should be marked with necessary general information regarding the tools to be used, the position of the plates, etc., to prevent mistakes by the operator. It is also an advantage, not to say a necessity, to use some kind of connection between the plates in order to avoid such mistakes as, for instance, the placing of the upper plate in a reversed position, the wrong pins entering into the dowel pin holes. This, of course, would locate the holes in a faulty position. Besides, if the upper plate be entirely loose from the lower, it is likely to drop off when the jig is stored, and get lost. Some means of holding the two parts

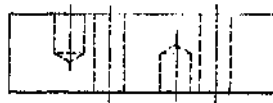


Fig. x. Work to be Drilled

together, even when not in use, or when not clamped down on the work, should therefore be provided. Such a means is employed in Fig. 2, where the screw *G* enters into the guiding dowel pin at the left and holds the upper plate in place*. A pin $\parallel \gg$ fitting into an elongated slot in the dowel pin, as shown at the left, could also be used instead of the screw. The design shown presents the very simplest form of box jig, consisting, as it does, of only two plates for holding the necessary guiding arrangements, and two pins or other means for locating the plates in relation to each other.

In manufacturing, where a great number of duplicate parts would be encountered, a jig designed in the simple manner shown in Fig. 2 would, however, be wholly inadequate. The simplest